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ABSTRACT

Although a review of the literature on competency-based teacher education (CBTE) reveals little or no reference to microteaching's contribution, microteaching was a precursor of CBTE and had a direct influence in its acceptance and development. A review of CBTE's essential characteristics and a comparison with microteaching shows that microteaching and the technical skills approach: (1) attempted to break down the global teaching act into more precisely defined, observable, and trainable skills, thus serving as a beach-head for the rapid spread of CBTE; (2) broke important new ground in the area of accountability; (3) pioneered the use of criterion-referenced evaluation, which is common in CBTE; (4) emphasized learning objectives and competencies, and performance rather than knowledge; and (5) predated CBTE in the use of systems approach. (DS)

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MICROTEACHING: FORERUNNER TO COMPETENCY BASED TEACHER EDUCATION

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Introduction*

In the last fifteen years, two of the most influential movements in American teacher education have been microteaching and competency based teacher education (CBTE). One survey reported that by 1968, 53 percent of all teacher education programs were using microteaching (Johnson, 1968). Similarly, Massanari reported that by 1973 of the 783 teacher education institutions responding to an AACTE survey, only 228 (29 percent) indicated that they were not then involved in some way in CBTE (1973). A 1977 survey of 686 AACTE institutions (out of 816 which were contacted) showed that 58% were involved in either full-scale or limited CBTE programs (Sandefur and Westbrook, 1978). Clearly, both of these practices had entered the mainstream of teacher education.

The purpose of this paper is to explore an hypothesis concerning these two innovations that to this writer's knowledge has not been previously posited: That microteaching was a precursor of CBTE and had a direct influence in its acceptance and development. Although a review of the literature on CBTE reveals little or no reference to microteaching's contribution to a behavioral approach to teacher education as an impetus for CBTE's development, this paper attempts to make a case for its contribution.

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CBTE: Its Historical Underpinnings

How did CBTE come about? What was the impetus that led to its development? A number of conditions or movements, including the rise of behavioral objectives, the accountability movement, teacher surpluses, and shifts in societal expectations about college education, have been cited as percursors for CBTE (Houston and Howsam, 1972; Hall and Jones, 1976). However, general consensus seems to be that the one most important catalyst for the actual development of CBTE was the development of the ten model elementary teacher education programs funded by the U. S. Office of Education (Houston and Howsam, 1972; Hall and Jones, 1976). Even though the elementary models were never funded for implementation, their emphases on competencies or performance criteria, systems design, personalization and individualization in their designs, enabled teacher educators to conceptualize how a program that could be called "competency based" might look and operate. There is little doubt that the elementary models project was the launching pad for the CBTE missile. Without the models CBTE might never have been.

Characteristics of CBTE

Much of the necessary groundwork, conceptualization, and psychological mind set regarding teacher education processes, however, had already been established by the microteaching and technical skills of teaching approach to teacher education. Many, if not most, of the characteristics attributed to CBTE are also characteristics of microteaching. By the time CBTE came

on the scene in the late 1960's and early 1970's, microteaching was already a common component in many teacher education programs. The fact that the microteaching and technical skills approach had been accepted and was being used in over half the nation's teacher education programs may have made many of the concepts and practices of CBTE seem compatible with what these institutions were already doing in their programs.

Placing parameters around a movement as diffuse as CBTE in order to define its characteristics and attributes is difficult. No arbitration board exists to settle disagreements among those who attempt to capture and examine the phenomenon. The problem of definition is further exacerbated because different institutions mix the various ingredients differently, each creating a unique recipe for CBTE. Despite these difficulties, attempts have been made to describe CBTE's characteristics. An examination of these essential characteristics follows.

Houston and Howsam (1972) attribute the following characteristics as being central to competency-based instruction:

(1) specification of learner objectives in behavioral terms;
(2) specification of the means for determining whether performance meets the indicated criterion levels;
(3) provision for one or more modes of instruction pertinent to the objectives, through which the learning activities may take place;
(4) public sharing of the objectives, criteria, means of assessment, and alternative activities;
(5) assessment of the learning experience in terms of competency criteria; and
(6) placement on the learner of the accountability for meeting the criteria (pp. 5-6).

Other concepts and procedures such as modularized packaging, systems approaches, educational technology, and guidance and management support are means of implementing competency-based instruction. These latter concepts are more related to individualization (Houston and Howsam, p. 6).

Elam (1971) described a similar list of characteristics as being essential to performance-based teacher education (he chooses to use the term PBTE rather than CBTE).

1. Competencies (knowledge, skills, behaviors) to be demonstrated by the student are
   - derived from explicit conceptions of teacher roles,
   - stated so as to make possible assessment of a student's behavior in relation to specific competencies, and
   - made public in advance;

2. Criteria to be employed in assessing competencies are
   - based upon, and in harmony with, specified competencies,
   - explicit in stating expected levels of mastery under specified conditions, and
   - made public in advance;

3. Assessment of the student's competency
   - uses his performance as the primary source of evidence,
   - takes into account evidence of the student's knowledge relevant to planning for, analyzing, interpreting, or evaluating situations or behavior, and
   - strives for objectivity;

4. The student's rate of progress through the program is determined by demonstrated competency rather than by time or course completion;

5. The instructional program is intended to facilitate the development and evaluation of the student's achievement of competencies specified (pp. 6-7).

Cooper and Weber define a CBTE program as one which "specifies the competencies to be demonstrated by the student, makes explicit the criteria to be applied in assessing the student's competencies, and holds the student accountable for meeting those criteria" (1973, p. 14).

Hall and Jones describe the basic commonalities of competency-based education as: (1) a set of learning objectives that are stated so that their accomplishment can be observed in the form of specified learner behaviors or knowledge; (b) minimum levels of achievement are established as a criterion of success; (c) competencies are stated so the assessment of student learning can take place through direct observation; (d) objectives are known to the student as he begins a learning experience; (e) level of mastery to be used as criteria of successful achievement is known by the student in advance; and (f) objectivity in assessment of achievement is sought by using the learner's performance as the primary source of evidence (pp. 10-11).

Comparison of CBTE's and Microteaching's Characteristics

Having reviewed CBTE's essential characteristics, a comparison of these characteristics with those of microteaching now follows.

1. Public specification of learner objectives in behavior terms. All writers on CBTE state that one of the essential characteristics of competency-based instruction is that precise learning objectives, defined in behavioral and assessable terms, must be known to learner and teacher alike. Both the learner and the instructor are aware of the expectations and of the criteria for completing the learning effort.

One of microteaching's major contributions to the processes of teacher education was its emphasis on precise, observable behaviors that the teacher trainee was expected to demonstrate. The various technical skills that were practiced in a microteaching context, such as asking probing questions, reinforcement, set induction, closure, and stimulus variation, were all clearly defined, and the behavioral components identified (Allen and Ryan, 1969). Both the instructor and the teacher trainees knew what was expected if the skill were adequately demonstrated. The use of filmed and videotaped models of the skill helped clarify these expectations. Microteaching and the technical skills approach was an attempt to break down the global teaching act into more precisely defined, observable, and trainable skills (Allen and Ryan, 1969; and Cooper and Allen, 1970). Had the beachhead of this approach to teacher education not been established by microteaching, CBTE's rapid spread might have been slowed considerably.

2. Accountability. A second essential characteristic of CBTE as identified by Houston and Howsam is accountability. By this they mean that, "The learner knows that he is expected to demonstrate the specified competencies to the required level and in the agreed-upon-manner. He accepts responsibility and expects to be held accountable for meeting the established criteria" (p. 4). This characteristic also pertains to the microteaching process. The supervisor, peers, and the students all critique the trainee's performance using prespecified criteria relevant to the skill being practiced.

Reteach opportunities are made available to trainees whose performances are deemed lacking, after they receive feedback on the specific deficiencies (Allen and Ryan, 1969).

3. Criterion-referenced. Instead of judgment in comparison with peers, Houston and Howsam and Elam assert that CBTE relies more on criterion-referenced evaluation in which the trainee's achievement is compared with the stated objectives and the specified criteria. Through the use of specific criteria, objectivity in the assessment process is sought. Again, the microteaching and technical skills approach employs the same system of evaluation (Allen and Ryan, 1969).

4. Instruction planned to facilitate competency acquisition. Instructional and learning activities are not offered because of some intrinsic values that they themselves possess. Instead, the learning activities are perceived as means by which competency acquisition occurs. The demonstration of competencies is the end, the instructional and learning activities are the means toward the end. Learning activities that cannot be related to specified competencies are not offered as part of the curriculum. Instruction must be goal or competency oriented.

Microteaching and the technical skills approach is also goal directed. The purposes of the learning activities in microteaching, i.e., studying the skill's component behaviors, watching model videotapes, practicing the skill, and receiving feedback, are all to help the trainee demonstrate competence in the particular skill being practiced. Because the expected outcomes are

so clearly specified, all the instructional and learning activities are oriented toward achievement of those outcomes.

5. Trainee's progress determined by demonstrated competence rather than by time. Both CBTE and microteaching skill training operate on this proposition. Until a certain level of competence has been reached, usually as judged by the individual responsible for assessing the performance, the trainee will continue to work on the competency or skill in question. The reteach cycle of microteaching was designed to provide the trainee with the opportunity to reach competence (Allen and Ryan, 1969).

6. Emphasis on performance, rather than simply knowledge. While CBTE programs do contain knowledge competencies, CBTE represents a movement away from reliance on knowledge assessment to more emphasis on performance assessment. Instead of being satisfied with testing what the trainee knows, CBTE programs are more concerned with what the trainee can do with that knowledge; that is, can the trainee perform specified skills and tasks of teaching. Several elementary models use the term "performance criteria" extensively, and performance based teacher education (PBTE) is often used interchangeably with CBTE. The name itself reflects a performance orientation.

Microteaching really set the stage for this performance orientation. Teaching skills are best assessed by observation of their performance. Microteaching requires that the trainee demonstrate the teaching skill by actually performing it with a small group of students. Granted the

microteaching context is less complex than an actual classroom; nevertheless, a teaching performance is required and evaluated. One of microteaching's greatest contributions to teacher education was the identification of teaching skills, and the development of training protocols which specified the component behaviors of each skill. Prior to this specification of teaching skills many teacher educators rejected the notion that prospective teachers could be trained for important tasks of teaching. These educators eschewed the concept of "teacher training," preferring instead the term "teacher education." "Animals are trained," they said, "not human beings." Microteaching proved to many teacher educators that prospective teachers could indeed be trained in a humanistic fashion to perform critical teaching skills. Had microteaching not broken this psychological barrier during the 1960's, CBTE's performance orientation might not have been accepted so readily by many teacher educators.

7. Systems approach. Banathy defines a system as a collection of interrelated and interacting components that work in an integrated fashion to attain predetermined purposes (Banathy, 1968). While not considered as an essential characteristic by either Elam or Houston and Howsam, these authors do note that CBTE makes use of a systemic approach to planning (Elam, p. 9; Houston and Howsam, p. 5). Virtually all ten elementary models deemed a systems approach to be necessary to design and operate a complicated CBTE program.

Although much smaller in scale than a CBTE program, microteaching operates as a system also. Its output is a teacher who can demonstrate and

use specified teaching skills. The inputs are the written materials describing the skills, the teacher trainee, supervisor, peers, and students, and the videotape equipment, if used. All of these components work together to try to achieve the desired output. The trainee's performance undergoes a critique, and the information is fed back to the trainee so he or she can modify behavior accordingly. The microteaching process operates as a cybernetic system. In a similar fashion, the managers of a CBTE program use a systems approach to try to monitor the program's functions and operations in order to modify the system when needed. Microteaching employs a systems approach on a small scale, while CBTE programs require a systems approach to manage and monitor the interactions of many more variables.

Conclusion

One can make the argument, and rightly so, that both microteaching and CBTE are the result of larger societal factors that influenced education. The federal government was pouring tremendous sums of money into education during the 1960's. As a result of Sputnik and the race to the moon, a wave of practicality was sweeping the country. Educators were being asked to produce results that were visible and measurable. The vision of Mark Hopkins and a student at opposite ends of a log was replaced with the vision of a teacher who possessed a repertoire of teaching skills. The art of teaching was developing a scientific basis. Educational research was becoming committed to measurement and evaluation of teacher behavior as part of the society's confidence in scientific inquiry. An engineering value system with its belief in practicality, measurement, performance, and systems approaches

seemed to find a receptive audience in education. After all, if we could land men on the moon with these approaches, surely the same technology could be applied to solving problems in education.

Regardless of these societal factors that may have brought both microteaching and CBTE into existence, the fact remains that microteaching preceded CBTE by about five years. During that five-year span, microteaching came to be used in over one-half of all teacher education programs in the country. So many of the characteristics that have been attributed to CBTE are also present in the microteaching and technical skills approach.

Consider the following paragraph taken from Allen and Ryan, Microteaching, and note the similarity of ideas expressed therein with rationales stated for CBTE.

> Frequently the behavioral objectives of a teacher education program, whether it be pre-service or in-service, are unclear both to those responsible for training and those receiving it. This allows for great freedom, but also for irrelevance and waste. The component-skills approach, however, forces the school or teacher training institution to define which teaching skills it considers important. It clarifies the expectation of all concerned. It also enables the institution to make a start on the problem of evaluation in order to more readily gauge the success or failure of its training (p. 25).

Is it not logical to assume that those who subscribed to microteaching's assumptions and rationale would also find CBTE compatible with their thinking?

Microteaching challenged certain assumptions about teacher education and asserted new ones. Obviously, at least some of the audience was receptive to these new and radical ideas. Those of us who were associated with the early microteaching efforts at Stanford University, however, can

remember how many teacher educators resisted its behavioral approach. But with persistent effort and research, the movement entered teacher education's mainstream.

In nightclubs a warm-up act is often used to prepare the audience for the star performer. In an analagous fashion, microteaching probably warmed up the teacher education audience for the coming of competency based teacher education. This assertion cannot be proven conclusively, however, one can look at the tremendous similarities in their characteristics and speculate on a cause and effect relationship. The argument seems to have considerable face validity.

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